

The New Congress and Science

by Ann Ewing

► MANY OF THE FACES will be new but the science and technology problems facing the 90th Congress will be the same old ones, ranging from air and water pollution to stimulating transportation innovations to protecting the national health and supporting basic research. But the approaches may change. The key House Committee on Science and Astronautics, for instance, should have five new members. Appropriations, Government Operations and other science-affecting committees will also change.

The oldest problem—it has been around since the days of Thomas Jefferson—is adoption of the metric system. This is a “bread-and-butter” issue affecting the taxes paid by every citizen and billions of dollars in foreign trade. It would mean making measurements in meters, liters, grams and degrees centigrade instead of feet, quarts, pounds and degrees Fahrenheit.

Since the United States is already far out of step with the rest of the world in using the metric system, it is considered crucial that the new Congress authorize a three-year study of the effects of switching to metric on all facets of the economy.

One automobile manufacturer, Ford Motor Company, is sufficiently concerned about the problems involved in a changeover that it has launched its own study.

Metric Bill Passage Foreseen

A bill authorizing the Government's three-year study had already passed the Senate, but the companion bill was blocked from reaching the House by Rules Committee Chairman Howard W. Smith (D-Va.). Since “Judge” Smith was defeated in the primaries, the chances are good that the same bill, on which hearings have already been held, will be introduced again by Rep. George P. Miller (D-Calif.), chairman of the House Committee on Science and Astronautics and passed handily. The hope is that the bill will be reported out of this committee without hearings, since so many have been held during previous years.

Another crucial problem facing the 90th Congress is defining what the next U.S. goal in space should be. Two contradictory answers are being given to the question, “Where do we go from here?” One is to place major emphasis on manned missions near earth, leaving establishment of lunar bases and manned exploration of the nearby planets until the late 1970s. The other is to give high priority to exploring

the planets and to searching for extra-terrestrial life, especially on Mars.

Making a decision between these two goals is critical because of the lag time required to build the rockets and other “hardware” to make the flights. The U.S. now does not have any firm plans for space exploration after the Apollo program is completed, probably in late 1968 or early 1969.

Since weather, navigation and communications satellites have already brought substantial economic, scientific and prestige payoffs, many Senators and Congressmen believe the U.S. emphasis should be on exploiting further the advantages such satellites offer, not racing to land man on Mars. They note that certain technical problems, such as how long exposure to zero gravity affects man and how serious is the calcium loss when experienced for many months, must be solved before man can make lengthy space voyages to the planets.

The Congress is still expected to rubber stamp an expected request for money to design a proposed 200 billion electron volt particle accelerator for high energy physics. Ultimate cost will pass \$300 million.

Also “crucial” but in a different sense is the role Congress has and should have concerning science and technology. Certain to be considered, although possibly not acted upon, are two recommendations made by the House Subcommittee on Science, Research and Development calling for changes in the method of attacking such problems as pollution, transportation and the nation's health.

Key to both changes is to investigate these and other problems on an overall basis, trying to determine in advance the total impact of proposed legislation rather than having each bill handled piecemeal by individual Congressional committees. The subcommittee suggested that two groups might be set up to do this job.

“Science and technology study groups” would be formed on an “ad hoc” basis and consist of the chairmen or members from each committee concerned with the legislation under consideration. They would meet to survey the entire program, thus obtaining comprehensive views that would be reported to their respective committees before taking up any specific bill.

If a broad program to initiate innovations in transportation, for instance, were to be considered by the 90th Congress, House committees involved would include Commerce, Foreign Affairs, Government Operations,

Merchant Marine, Public Works, Science and Astronautics and last, but never least, Appropriations.

The second group would deal with the undesirable byproduct of modern technology, and would be called Technology Assessment Board, or TAB, an acronym considered appropriate by the subcommittee since the board's job would be to keep “tab on the potential dangers, as well as the benefits, inherent in new technology and simultaneously informing the public.”

Although the subcommittee did not make detailed recommendations concerning the function of this group, TAB is not foreseen as having the “regulatory powers” of the Civil Aeronautics Board nor the “cease and desist” authority of the Federal Trade Commission. Rather it would “spot and gage the difficulties of side effects” of technological advances, determining their effects well in advance of their crystallization.

Ocean Studies Spurred

Another field in which legislation by the incoming Congress will be crucial is to maintain the momentum already given to oceanographic research, such as by the 1966 law establishing “sea grant” colleges at which the sea and its potential uses would be studied.

Although the legislation passed Congress without difficulty, the House Appropriations Committee finally approved only about 75% of the funds originally requested for the first year's operations because it was miffed that the new council started enthusiastically organizing after President Lyndon B. Johnson signed the legislation, but before any money had been appropriated by Congress for its operation.

The House Appropriations Committee is the “last but never least” for all Congressional legislation, science fields included. No matter how carefully the Senate and House committees dealing with science and technology investigate the problems before them, the House Appropriations Committee can, and often has, exercised a restraining hand.

A little publicized but highly important illustration of this point occurs when funds for the National Science Foundation are considered. The role of NSF in guiding and supervising Government's management of scientific research should be broadened, the House Subcommittee on Science, Research and Development has concluded.

But the appropriations committee has never seen fit to give NSF the money to accomplish this.